

WHAT IS CLAIMED IS

5

1. A semiconductor integrated circuit, comprising:

a plurality of layers provided on a semiconductor substrate;

10 wires provided in a first layer that is one of said plurality of layers; and

wire dummies provided in a second layer different from the first layer and having an arrangement that avoids areas overlapping positions
15 of said wires.

20 2. The semiconductor integrated circuit as claimed in claim 1, wherein the first layer is a layer immediately above or immediately below the second layer.

25

3. The semiconductor integrated circuit as claimed in claim 1, wherein said wires are signal
30 wires excluding power supply wires.

35

4. The semiconductor integrated circuit as claimed in claim 3, wherein said wire dummies are further provided in areas overlapping positions of

said power supply wires that are provided in the first layer.

5

5. The semiconductor integrated circuit as claimed in claim 4, wherein said signal wires have a width less than a predetermined wire width, and said power supply wires have a width greater than the predetermined wire width.

15

sub B2

6. The semiconductor integrated circuit as claimed in claim 1, wherein said wire dummies have the arrangement that further avoids areas overlapping positions of polysilicon or diffusion layers.

20

25

7. A semiconductor integrated circuit, comprising:

a wire layer;

wires provided in said wire layer; and

dummy patterns provided in said wire layer

30 and having different sizes.

35

sub B2

8. The semiconductor integrated circuit as claimed in claim 7, wherein said dummy patterns having different sizes are arranged at respective

different pattern intervals.

5

9. A semiconductor integrated circuit,
comprising:

10 a wire layer;
wires provided in said wire layer; and
dummy patterns provided in said wire layer
and having different shapes conforming to patterns
of said wires.

15

10. A semiconductor integrated circuit,
comprising:

20 a plurality of wire layers stacked one
over another;
a plurality of wires including first wires
and second wires and arranged in a first wire layer
that is one of said wire layers, said plurality of
wires being arranged at various intervals, a
25 shortest of which is a predetermined interval, said
first wires having wires on both sides thereof at a
distance equal to said predetermined interval, and
said second wires having no wires on both sides
thereof at a distance equal to the predetermined
30 interval; and

dummy patterns provided in a second wire
layer immediately above or below the first wire
layer, said dummy patterns being arranged in areas
overlapping positions of said first wires and being
35 absent in areas overlapping positions of said second
wires.

11. The semiconductor integrated circuit
5 as claimed in claim 10, wherein said plurality of
wires includes third wires having a wire only on one
side thereof at a distance equal to the
predetermined interval, and said dummy patterns are
arranged in the second layer in areas overlapping
10 positions of said third wires.

12. The semiconductor integrated circuit
15 as claimed in claim 10, wherein said plurality of
wires includes third wires having a wire only on one
side thereof at a distance equal to the
predetermined interval, and said dummy patterns are
20 absent in the second layer in areas overlapping
positions of said third wires.

25 13. A semiconductor integrated circuit,
comprising:

a plurality of wire layers stacked one
over another;

30 a plurality of wires including first wires,
second wires, and third wires, and arranged in a
first wire layer that is one of said wire layers,
said first wires being narrower than a predetermined
width, said second wires being equal to or wider
35 than the predetermined width and carrying a power
supply potential, and said third wires being equal
to or wider than the predetermined width and

carrying a clock signal; and

dummy patterns provided in a second wire layer immediately above or below the first wire layer, said dummy patterns being arranged in areas overlapping positions of said second wires and being absent in areas overlapping positions of said third wires.

10

14. A method of arranging dummy patterns, comprising the steps of:

providing sets of dummy patterns, each of said sets including patterns of a corresponding size arranged in rows and columns; and arranging the sets of dummy patterns in a descending order of size on a wire layout.

20

15. A method of arranging dummy patterns, comprising the steps of:

providing dummy patterns arranged at varying intervals inclusive of first intervals and second intervals that are longer than the first intervals;

arranging the dummy patterns on a wire layout;

combining the dummy patterns spaced at the first intervals by expanding size of the dummy patterns; and

shrinking the size of the combined dummy patterns.

16. A method of arranging dummy patterns,
comprising:

5 expanding width of first wire patterns
arranged in a first wire layer at various intervals,
a shortest of which is a predetermined interval, so
as to combine the first wire patterns spaced at said
predetermined interval;

10 shrinking width of the expanded wire
patterns including the combined wire patterns;

 generating second wire patterns by
superimposing the shrunk wire patterns on the first
wire patterns; and

15 arranging dummy patterns in a second layer
immediately above or below the first layer while
avoiding areas overlapping positions of the second
wire patterns, except for positions of the shrunk
wire patterns.

20

TOP SECRET